/159 cont./

121 182 114 [171] /footnote 1 continued/ completely any reference to organization by ikhs. For the Algerian S., I found valuable notes in D. Moulias, L'eau dans les oasis sahariennes (organisation hydraulique, régime juridique) /Water in the Saharan oases (hydraulic organization, juridical regime)/, 1927, where one will note suggestive details on the unending conflicts -- conflicts of the blind and the deaf -- between a legalist regulation and the customary reality in the Algerian S. in the course of the nineteenth century.

121 182 and a total module which, for the Seksawa, does not appear to exceed 250 ls. for several hundred kilometers of séguia and some twelve thousand inhabitants point to authenticity or, on the contrary, indicate the effects of history?

Modes and Manurings

241 184 Tillage differs from the bottom to the top of the mountains and by tools and by modes.

241 412 184 First, by the tools. The hoe, agelzim, plays an increasingly larger role from downstream to upstream. Its domain is horticulture, the intercalary modes, and in that case parcels too exiguous to permit the evolutions of the swing plow. At Bul^{c}wân, it intervenes only as an instrument of finicky work on the edges, or else in places where the plow, coming and going, is obliged to leave certain corners in order to turn. In a. Mh'nd, on the contrary, it is the required complement of the plow, so that the tillage is usually done by two together, one holding the stilt, the other the tool in hand.

241 407 492 184 [462] In Bas /Lower/ Seksawa, the classic harnessing of two beasts, zzuja, is used. But in the montagnard domain, there is no more than one beast, /160/ lferd. Yet it is always the man who plows, and never the woman, as is done in the far Sous. A statistical sample gives for each of these two forms of harnessing, zzuja

/160 cont./

241 and Iferd, the following distribution:
407
492
184

	a. Abdella	a. Lh'sen	a. Musa	Imt'ddan	Idma	a. Mh'nd	a. H'adduyws	I. Geryun	Total
Two-beast plow	287	76	58						421
One-beast plow...		273	12	63	293	57	145	141	984
Totals	287	349	70	63	293	57	145	141	1,405

The distribution is regulated according to the line of the slope. Upstream, only the Iferd is known. Downstream, only the zzuja, which is logical and expected. For the intermediate taqbilt-s, let us go into more detail:

	zzuja	*Iferd*	
a. Lh'sen :	—	—	
Tabratjut	11	13	
Tamesdakht	5	8	
Awinas	10	1	
Agadir	6	3	
Ighilan	9	11	
Buteghradin	2	22	
Iwulla	2	30	
Wanz'id'	3	28	
That is	48	116	for the a. Lh'sen properly speaking.
Iguntar :			
Tagenza	8	22	
Tanammert	1	5	
That is.....	9	27	for this vassal taqbilt.
Ibuban :			
Talburt.....	2	20	
Amasin		18	
Timskert		16	
Tugg Lkhir		12	
That is	2	66	for this other vassal taqbilt.
Sekrat :			
Amsgerdat		26	
Fumazir	5	10	
Tageddut	4	8	
Tigumma n-Skrat	8	20	
That is	17	64	for this other vassal taqbilt.
a. Musa	58	12	

241 /161/ The limit of these two types, or rather their fringe of
407 interference, can be clearly figured by a line that would follow
• 412 from E. to W. the small plain of Tabratjut, downstream from
184 Z'init', and the valley of the asif n-a. Lh'sen. This symmetry is all the more remarkable because it does not correspond either to a difference of agricultural richness or to a change in the availability of surface. For example, it is certain that the affluence of soil is indeed greater in a. Mh'nd than in Iguntar: but the latter has zzuja-s. It is thus a matter of something other than the simple play of physical conditions.

241 This impression is confirmed by the fact that this threshold of
192 tools is duplicated by a technical and lexicographical threshold.
184 In the mountains, the word tirit or tisirit designates the planche of irrigation, edged with borders, smoothed, prepared for the water. In a. Abdella, the same word designates the initial "marquage" /marking/ of the fallow land (1)

1. Summary bibliography of this obscure notion in J. Berque, "Un glossaire notarial arabo-chleuh du Deren (XVIII^{e} siècle)," R. afr., 1950, p. 372, n. 11.

241 before sowing. The common practice is in fact that of immediate sowing before plowing. From that one understands the sense of this checkerwork, or rather of this carving in parallel lines, the whole of which affects the form of a grill and which one sees dividing the work fields in autumn. A demarcation for the casting of seeds, a discrimination perhaps between zones where the density of the grain will be more or less forced -- and one knows that in Moroccan agriculture these variations can go from the simple to the double, depending on qualifications of the soil most often obscure to our agronomy -- all of that is understood: it is as well a technique that is conscious and defined completely by the fellah. But, in the Gharb, where the gllb, "first plowing," most often precedes the sowing, and where the direct cast, ᶜala ujeh, is practiced only on the sole of sorghum, bernicha, the preliminary technique of the marking also exists. In this way small squares or

[Bul^{c}wân]
[Taqennurt]

/214 cont./

b) Taqennurt

613
423
241

Fuq Bul^{c}wân is a ground that includes 141 very unequal parcels, 100 of them exiguous and 4 spacious. If one adds this number to that of Taqennurt, one obtains a figure of some /215/ 220 parcels for a total area of approximately 55 ha. That is, an average area of about 20 ares per parcel. A considerable figure in relation to the horticulture upstream: almost tenfold. It implies a cereal economy, with animal tillage with two beasts. In fact, Bul^{c}wân and Taqqenurt together count nearly 200 bovines. Here the hoe is used only to finish the work around the foot of the trees.

[492]
[233]
[412]

Other verifications result from the parceling.

Names of ikhs-s	Number having rights	Number of parcels at Bul^{c}wân	Number of parcels at Taqennurt	Total of the parcels
a. Lkhil	2	21	13	34
a. Lmchari	6	13	5	18
a. Sidi Ghânem	10	32	2	34
a. Belh'ajj	1	3		3
a. H'mmo u Jâa	2	2	4	6
a. H'mmo u Qeddur	2	3	1	4
a. Si Mh'nd	7	17	7	24
Ichkajen	4	12	1	13
a. Wah'man	1	2	1	3
a. Benjâa	5	8	1	9
a. Naçr	1	1		1
a. Ussttif	1	1		1
a. Bihi u Sâid	2	5		5
a. Wammern	2	10	5	15
a. Sâid	3	7	1	8
a. Bella u H'fid'	1	1		1
a. Wanz'id'	1	1		1
a. Bihi u H'fid'	3	1	7	8
a. Waferynd'	2		8	8
a. Alla u Bujmâ	1		2	2
a. Jâa Uk«ays	2		2	2
a. Lqorchi	1		1	1
a. Lcanayt	6	3	4	7
a. Wârab	3		6	6
Ih'ançalen	2		3	3
a. Bihi u Ali	2		6	6
Total: 26 ikhs-s	70	143	80	223

/228 cont./

121 and which would call for irrelevant quantitative comparisons,
423 one nevertheless suspects, in the limited cadre of the western Haut-Atlas, great inequalities between grounds. Consequently, have we not risked basing our description excessively on the limited case of the irrigated ravine, while other aspects, visually broader, also decisive economically, likewise call for analysis? /229/ And, on the other hand, what inexactitude would there not have been in imagining that the montagnard reality presents itself everywhere with equal rigor!

Phenomena of erosion or of disuse can, even in the irrigated, bring on the collapse of the system. Above all, it is the juridical inextricability, itself resulting from a weakening of the communitarian life: in the complexity of the old gentilitial formula the
[178] young generations were no longer met with again. Weary of war, a jemâa agreement substitutes, for the former devolution of water by ikhs, a watering by contiguous pieces.

But beside this factor of more or less great integrity of the montagnard type, another, doubtlessly of major importance, intervenes: its degree of spread in space.

423 If one turns one's attention from the valley land in order to
184 put it on the high surfaces for rye, for example, one finds that
243 two essential elements are missing for verifying the structural rule
[312] that we have defined: no division of time into turns for water,
[181] and for reason; and fewer minutiae in the toponyms. The life of the heights is less willing, less refined, looser. The simultaneous
[613] implantation of all the ikhs-s is more theoretical than real. For
• [492] this agriculture, distant from the village, requires means of transport, the harness or at the very least the beast of burden. It is not within the reach of all. Not all risk it. It is an agriculture of representative ambitious ones, not of egalitarian citizens. Operating in a social milieu less finely innervated, if I may venture to say it, deprived of this permanent exercise of will and equilibrium, and also of this measure of time that irrigation constitutes, it correlatively puts up with a haziness of the law and a haziness of the techniques: irregular fallowings, returns to wasteland, abandonment of an overly poor harvest, submission to the hazards of the snowfall and of the pluviometry.

/15 cont./

133 491 In the western Atlas the Tizi n Fedghat and the Tizi n Telwet, at close to 2,000 meters in altitude, thus put the land of the Skoura, the Haut-Dra, in communication with Demnat and Marrakech by a road that the winter snows sometimes cut for several weeks. Farther to the West, the Tizi n Test, which rises to 1,900 meters, presents the same difficulties; it is followed by travelers who are going from Taroudant to Marrakech by following the valley of the Nefis. The Tizi Maᶜcho, whose altitude does not go beyond 1,400 meters, is free in all seasons; it commands the passage from Taroudant to Imi n Tanout and Mogador. Finally, no difficulty is found on the coastal trail, which borders the country of the Haha, other than the slope of the last hills of the Atlas or the bed of the dry wadis in the vicinity of the Ocean; this is the natural route of invasions between the plains of the Sous and Marrakech, which Arabs and Berbères /Berbers/ have so often taken in the course of the centuries.

These routes of the Deren are themselves only the prolongation of the ones used across the Anti-Atlas by travelers who have come from the palm groves of the Noun /Nun/ and the Bani and who want to reach the towns of the North. From Aqqa and Tatta, by way of the crests of the Ida ou Kensous or the valley of the Inda ou Zal, one thus arrives in the Sous plain at the very point where the trail of the Tizi n Test climbs the Haut-Atlas toward Marrakech; from Tamanart by way of Amanouz and the Tizi n Taraqatin one reaches the land of the Ida ou Gnidif and the Aït Mzal, to find before him the passage of the Tizi Maᶜcho across the Deren. Between /16/ the Ocean and the western massif of the Kest and of the Ida ou Semlal, the rolling territory of the Aït Ba ᶜAmran, the plain of Tiznit and of the Chtouka offer an easy route for the caravans that go up toward Mogador by following the trail of the Haha.

133 491 -492 There are many other intermediate passes, which, without being graded for the movement of the heavily loaded camels, cross the high crests between the upper valleys of each versant. In the Deren during the fine season the montagnards use up to

/16 cont./

133 491 [492] more than 3,000 meters of altitude with their mules, difficult roads that, in addition, are enlivened by the passage of the women, children, and flocks.

[233] [438] The transhumance of the sheep and goats, the exchange of the walnuts, wool, and almonds of the high valleys for the grain, tea, sugar, and manufactured objects from the souks /sooks/ of the Dir maintain the continuity of these relations. The activity observed on these crests during the days of spring and summer is enough to make one understand the importance of the bonds that unite plain and mountain.

In vain does the internal partitioning of the valleys, which the successive tiers of the Atlas cut up into separate basins and seal up by gorges, isolate the villages one from another. In * [634] [578] [437] spite of the reciprocal hostility of the Berbère /Berber/ cantons on the same route of passage, one sees alliances established at great distances, from the North to the South, in the direction followed by the transverse routes of the mountains. The small states of the summits are associated with the villages of the last slopes or of the plain in the same way.

361 628 [487] [438] On the other hand, relations are difficult between villages established at the same altitude in the parallel valleys, and only goat paths permit passing from one to the other; besides, since economic exchanges between the neighboring populations who live under identical conditions are of no interest, one understands that the political horizon of the small mountain states, so extended toward the North or toward the South, in the direction of the plain of Marrakech or the interior plain of the Sous, is, on the other hand, toward the East or toward the West limited for each of them to the closest villages.

491 VIII. The mountain massifs. -- The role of these great routes of passage that cross the two chains is not only /17/ to facilitate the moving of people and economic activity. They [184] cut the Atlas and Anti-Atlas into separate massifs, inside which the material and social life of the tribes takes on peculiar forms, which give each of them a true originality and explain the